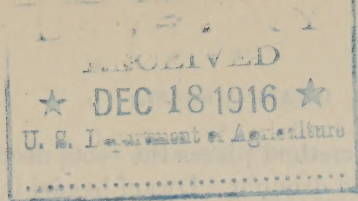


## **Historic, Archive Document**

Do not assume content reflects current scientific knowledge, policies, or practices.





# United States Department of Agriculture,

## BUREAU OF PLANT INDUSTRY,

New and Rare Seed Distribution,

WASHINGTON, D. C.

### DWARF HEGARI.

**OBJECT OF THE DISTRIBUTION.**—The distribution of new and rare seeds has for its object the dissemination of new and rare crops, improved strains of staple crops, and high-grade seed of crops new to sections where the data of the department indicate such crops to be of considerable promise. Each package contains a sufficient quantity for a preliminary trial, and where it is at all practicable the recipient is urged to use the seed for the production of stocks for future plantings. It is believed that if this practice is followed consistently it will result in a material improvement in the crops of the country. Please make a full report on the inclosed blank regarding the results you obtain with the seed.

### DESCRIPTION AND HISTORY.

Dwarf hegari is a sorghum that was introduced into the United States from the Sudan region of Africa in 1908. It is native in the same part of Sudan as feterita and is known there by the natives as "hegari." A dwarf strain was obtained by selection at the Chilli-cothe (Tex.) Field Station and this selection was given the name "Dwarf hegari" in order to distinguish it from Dwarf Blackhull kafir, which it resembles very closely. The leaves are numerous and large, like those of kafir. The stem is not so thick, but is more juicy and sweeter than the stem of kafir, and it bears a uniformly upright seed head very like that of kafir in shape, but looser. The seed is a trifle larger than Blackhull kafir seed, about intermediate between it and feterita seed in size and also in hardness. Dwarf hegari under ordinary conditions grows to a height of 4 to 4½ feet and matures in 90 to 100 days, a little earlier than the Dwarf milo. It withstands drought as well as the latter and produces an equal yield of grain. Its short growing season allows it to be grown well north in the Great Plains, and in the southern part of this region it produces two crops of grain in one season when late rains are abundant. It is adapted to Texas and New Mexico, western Oklahoma, Kansas, and Nebraska, and eastern Colorado. The fodder yield is not equal to that of Blackhull kafir, but is better than that of Dwarf milo.

### PLANTING.

Dwarf hegari should be planted about two weeks later than Indian corn except in regions troubled with the sorghum midge, where very early plantings are recommended. The usual method of planting is

in listed furrows, as this method places the roots deep in the soil and aids the plant to withstand drought. Dwarf hegari is usually planted in cultivated rows 36 to 44 inches apart, or about the same as Indian corn. When planting in this manner, 4 to 6 pounds of clean seed will be sufficient for an acre. With well-prepared ground and seed of good germination the lower rate of seeding is advised. Thick stands produce finer stalks and smaller heads, but will be liable to greater injury from drought than comparatively thin stands.

#### CULTIVATION.

Dwarf hegari should be cultivated much the same as Indian corn. It is usually best to cultivate two or three times with a harrow while the plants are small, but as soon as sufficient growth is made the crop should be given a fairly deep and thorough cultivation. Two or three subsequent and shallower cultivations are desirable to conserve moisture. Care should be used to make the last cultivation shallow, in order to avoid breaking the feeding roots.

#### HARVESTING.

If harvested for both grain and fodder, the crop should be cut in the late dough stage. Cutting with a corn binder and shocking in the field is the least expensive method. A corn binder is also the most practical method of harvesting if the crop is to be utilized as silage. When grown solely for the grain yield, it should be allowed to stand until the stems at the base of the head are dry. If the heads are cut by hand or a header from the standing stalks, the remainder of the crop can be utilized for pasture.

#### FEEDING.

Dwarf hegari is valuable as a grain crop and provides the stock feeder in the arid regions with a very satisfactory substitute for corn. When used as a grain feed, it is well to grind the seed, or its full value as a grain will not be realized. Where fed to cattle in the bundle, hogs should always be kept in the feed lot to pick up the undigested and scattered grains. It has been found in practical feeding tests that it takes about 10 pounds of Dwarf hegari to equal 9 pounds of corn. Dwarf hegari makes good silage, but the tonnage is not so large as that of Blackhull kafir or the sweet sorghums. Much of the fodder, like that of the other sorghums, will be fed in the bundle to horses and cattle, providing thus both grain and roughage, but a little cottonseed meal or some other concentrate rich in protein and fat should be fed with it to produce the best results in fattening cattle.

## SEED SELECTION.

With a few exceptions, home-grown seed is always best. It is therefore essential that each farmer select and keep his own seed from year to year. The best time to make selections is in the field as soon as the earlier heads mature. Dwarf, leafy plants without side branches and with little tendency to stool should be selected. The stalks should bear about 14 leaves and be as sweet and juicy as possible. A uniform, compact seed head, well shaped and well filled at both butt and tip, should be selected. In seed selection, care must be taken to avoid hybrids. The exceedingly large seed heads are generally the result of hybridization or of some local variation in stand or soil conditions. Selections should be made 100 yards or more from any other variety of sorghum, as all varieties cross freely. By careful selection and the growing of your own seed, yields can be materially increased.

Approved:

WM. A. TAYLOR,  
*Chief of Bureau.*

SEPTEMBER 9, 1916.

Page 2D

INVESTIGATION

REPORT

With a few exceptions, however, and is always true. It is therefore essential that each farmer select and keep his own seed from year to year. The best time to make selection is in the field as soon as the winter wheat matures. It is best to select without side branches and with little tendency to stem break in winter. The stalks should be at least 14 inches and be as erect and firm as possible. A uniform, compact seed head, well filled and well filled at both ends and the seed should be selected. The seed selection can then be taken to avoid hybridity. The seedling stage and heads are generally the result of hybridization or of some form of selection in seed or soil conditions. Seedlings should be made 100 yards or more from any other variety of wheat, as all varieties must have the essential characteristics of the growing of your own seed. This can be carefully inspected.

Approved:

W. A. Taylor

Chief of Bureau

Secretary of State